DOE/NV--1088

Nevada
Environmental
Restoration
Project

Closure Report For Corrective Action Unit 395: Area 19 Spill Sites, Nevada Test Site, Nevada

Controlled Copy No.:_____

Revision: 0

October 2005

Environmental Restoration
Division

U. S. Department of Energy
National Nuclear Security Administration
Nevada Site Office

DISCLAIMER

DOE/NV--1088

CLOSURE REPORT FOR CORRECTIVE ACTION UNIT 395: AREA 19 SPILL SITES, NEVADA TEST SITE, NEVADA

U.S. Department of Energy
National Nuclear Security Administration
Nevada Site Office
Las Vegas, Nevada

Controlled Copy No: _____

Revision: 0

October 2005

THIS PAGE INTENTIONALLY LEFT BLANK

CLOSURE REPORT
FOR CORRECTIVE ACTION UNIT 395:
AREA 19 SPILL SITES,
NEVADA TEST SITE, NEVADA

Approved By: _____ Date: 10-13-05
Kevin Cabble, Acting Project Manager
Industrial Sites Project

Approved By: _____ Date: 10/13/05
Janet Appenzeller-Wing, Acting Division Director
Environmental Restoration Division

THIS PAGE INTENTIONALLY LEFT BLANK

TABLE OF CONTENTS

ACRONYMS AND ABBREVIATIONS vii
EXECUTIVE SUMMARY ix
1.0 INTRODUCTION 1
2.0 CLOSURE ACTIVITIES 3
2.1 DESCRIPTION OF CLOSURE ACTIVITIES 3
2.1.1 Preplanning and Site Preparation 3
2.2 WASTE CLASSIFICATION ACTIVITIES 3
2.3 SITE CLOSURE ACTIVITIES 4
2.3.1 CAS 19-19-04: Concrete Spill 4
2.3.2 CAS 19-25-03: Oil Spills 4
2.3.3 CAS 19-44-02: Fuel Spill 4
2.3.4 CAS 19-44-04: U-19bk Drill Site Release 4
2.3.5 CAS 19-44-05: U-19bh Drill Site Release 4
2.3.6 CAS 19-99-05: Pile; Unknown Material 5
2.3.7 CAS 19-99-07: Cement Spill 5
2.3.8 CAS 19-99-08: Cement Spill 5
2.3.9 CAS 19-99-10: Cement Spill 6
3.0 WASTE DISPOSITION 7
4.0 CLOSURE VERIFICATION 9
5.0 SUMMARY AND RECOMMENDATIONS 11
5.1 SUMMARY 11
5.2 RECOMMENDATIONS 11
6.0 REFERENCES 13

FIGURES

FIGURE 1. CAU 395 SITE LOCATION MAP 2

TABLES

TABLE 1. SUMMARY OF ANALYTICAL RESULTS FOR WASTE CLASSIFICATION SAMPLE 3
TABLE 2. SUMMARY OF ANALYTICAL RESULTS FOR SOIL VERIFICATION SAMPLES 9

TABLE OF CONTENTS (continued)

APPENDICES

APPENDIX A: SAMPLE ANALYTICAL RESULTS

APPENDIX B: SECTORED HOUSEKEEPING SITE CLOSURE VERIFICATION FORMS

APPENDIX C: NATIONAL ENVIRONMENTAL POLICY ACT EVALUATION CHECKLIST

LIBRARY DISTRIBUTION LIST

ACRONYMS AND ABBREVIATIONS

BN	Bechtel Nevada
CAS	Corrective Action Site
CAU	Corrective Action Unit
DRO	diesel-range organics
ft^3	cubic foot (feet)
FFACO	Federal Facility Agreement and Consent Order
GRO	gasoline-range organics
IT	International Technology Corporation
µg/kg	microgram per kilogram
µg/L	microgram per liter
mg/kg	milligrams per kilograms
mg/L	milligram(s) per liter
NDEP	Nevada Division of Environmental Protection
ND	not detected
NNSA/NSO	U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office
ORO	motor oil range organics
PCB	polychlorinated biphenyls
pCi/g	picoCuries per gram
RCRA	Resource Conservation and Recovery Act
SVOC	semivolatile organic compounds
TCLP	Toxicity Characteristic Leaching Procedure
TPH	total petroleum hydrocarbons
VOC	volatile organic compounds
yd^3	cubic yard(s)

THIS PAGE INTENTIONALLY LEFT BLANK

EXECUTIVE SUMMARY

Corrective Action Unit (CAU) 395, Area 19 Spill Sites, consists of nine Corrective Action Sites (CASs) located in Area 19 of the Nevada Test Site. Closure activities performed at each CAS include:

- CAS 19-19-04, Concrete Spill: A concrete spill could not be located at the site. Therefore, no further action was taken.
- CAS 19-25-03, Oil Spills: Approximately five cubic yards of hydrocarbon-impacted soil and various used oil filters were removed from the site and transported to the Area 6 Hydrocarbon Landfill for disposal.
- CAS 19-44-02, Fuel Spill: Less than 0.5 cubic feet of hydrocarbon-impacted soil was removed from a concrete pad and transported to the Area 6 Hydrocarbon Landfill for disposal.
- CAS 19-44-04, U-19bk Drill Site Release: Approximately four cubic yards of hydrocarbon-impacted soil were removed from the site and transported to the Area 6 Hydrocarbon Landfill for disposal.
- CAS 19-44-05, U-19bh Drill Site Release: Evidence of an oil spill could not be found at the site. Therefore, no further action was taken.
- CAS 19-99-05, Pile; Unknown Material: Based on previous sampling activities by International Technology (IT) Corporation the material was determined to be non-hazardous. Due to the remote location of the material and the determination that removal of the material would constitute an unnecessary ground disturbance as defined in the Sectored Housekeeping Work Plan, the U. S. Department of Energy, National Nuclear Security Administration Nevada Site Office (NNSA/NSO) and Nevada Division of Environmental Protection (NDEP) agreed that the site would be closed by taking no further action.
- CAS 19-99-07, Cement Spill: Based on previous sampling activities by IT Corporation the material was determined to be non-hazardous. Due to the remote location of the material and the determination that removal of the material would constitute an unnecessary ground disturbance as defined in the Sectored Housekeeping Work Plan, the NNSA/NSO and NDEP agreed that the site would be closed by taking no further action.
- CAS 19-99-08, Cement Spill: Based on previous sampling activities by IT Corporation the material was determined to be non-hazardous. Due to the remote location of the material and the determination that removal of the material would constitute an unnecessary ground disturbance as defined in the Sectored Housekeeping Work Plan, the NNSA/NSO and NDEP agreed that the site would be closed by taking no further action.

- CAS 19-99-10, Cement Spill: Based on previous sampling activities by IT Corporation the material was determined to be non-hazardous. Due to the remote location of the material and the determination that removal of the material would constitute an unnecessary ground disturbance as defined in the Sectored Housekeeping Work Plan, the NNSA/NSO and NDEP agreed that the site would be closed by taking no further action.

A copy of the Sectored Housekeeping Site Closure Verification Form for each of the CAU 395 CASs is included in Appendix B of this report.

1.0 INTRODUCTION

This report documents that the closure activities conducted for Corrective Action Unit (CAU) 395: Area 19 Spill Sites, met the approved closure standards. CAU 395 is listed in Appendix III of the *Federal Facility Agreement and Consent Order* (FFACO, 1996) and consists of nine Corrective Action Sites (CAS) located in Area 19 of the Nevada Test Site (Figure 1):

- CAS 19-19-04, Concrete Spill
- CAS 19-25-03, Oil Spills
- CAS 19-44-02, Fuel Spill
- CAS 19-44-04, U-19bk Drill Site Release
- CAS 19-44-05, U-19bh Drill Site Release
- CAS 19-99-05, Pile; Unknown Material
- CAS 19-99-07, Cement Spill
- CAS 19-99-08, Cement Spill
- CAS 19-99-10: Cement Spill

Closure activities at the above CASs consisted of documenting current site conditions, identifying and removing debris and other material, classifying and disposing of any generated waste, and verifying by visual inspection that each site was clean of housekeeping debris. Note: by agreement the identified housekeeping waste present at CASs 19-99-05, 19-99-07, 19-99-08, and 19-99-10 was left in place, and the sites closed by taking no further action.

Copies of the analytical results for the waste classification samples are included in Appendix A. A copy of the Sectored Housekeeping Site Closure Verification Form for each CAS is included in Appendix B. A copy of the National Environmental Policy Act Evaluation Checklist for the housekeeping CAUs is included in Appendix C.

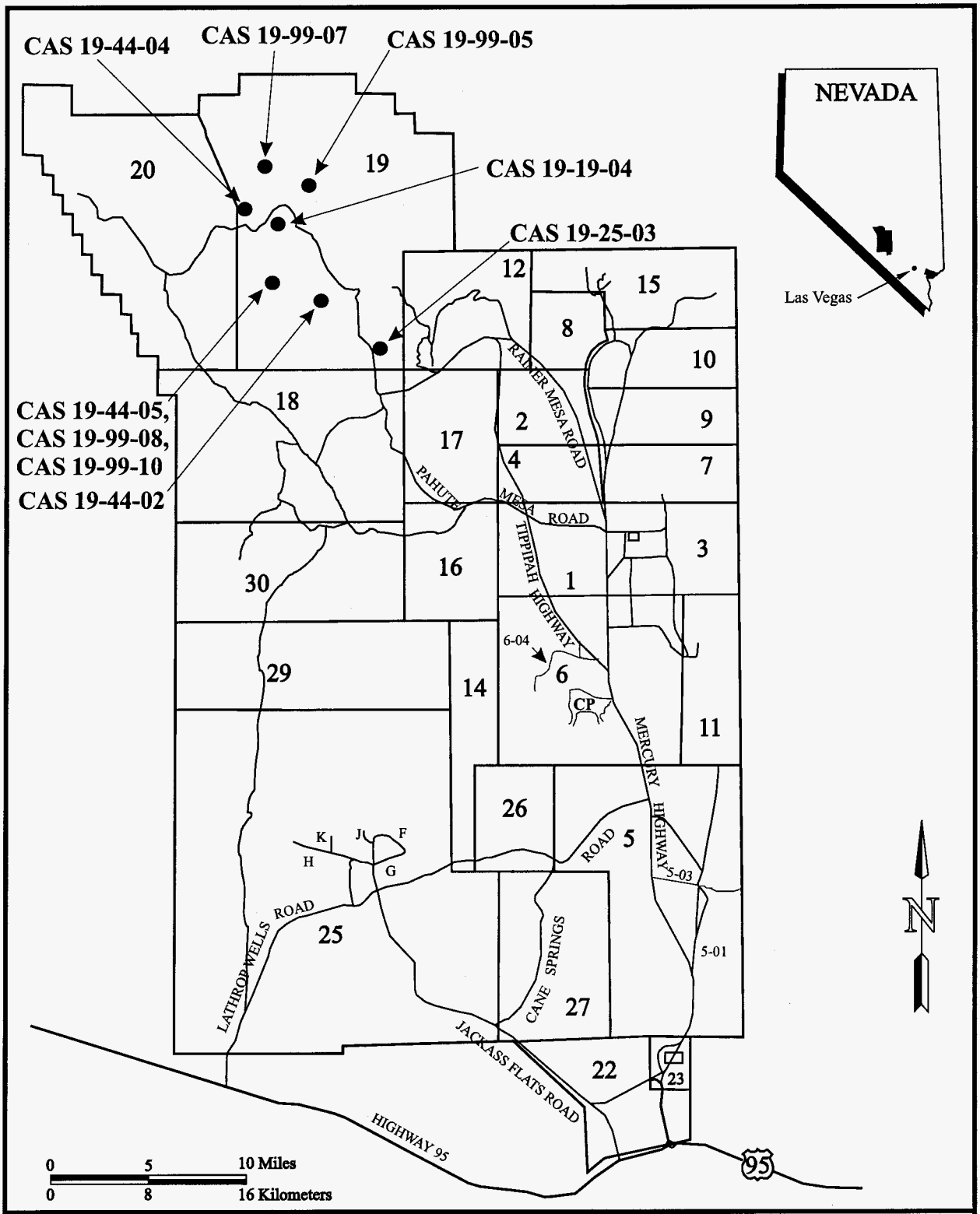


FIGURE 1
CAU 395 SITE LOCATION MAP

2.0 CLOSURE ACTIVITIES

This section details the specific activities completed for closure of CAU 395: Area 19 Spill Sites.

2.1 DESCRIPTION OF CLOSURE ACTIVITIES

2.1.1 Preplanning and Site Preparation

Planning documents prepared prior to the beginning of closure activities include the following:

- Sectored Clean-up Work Plan For Housekeeping Category Waste Sites (U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office [NNSA/NSO], 2003).
- Generic Field Management Plan for Housekeeping Category Waste Sites (NNSA/NSO, 2005).
- Site-Specific Health and Safety Plan for Corrective Action Units 167, 210, 286, 390, and 395 (Bechtel Nevada [BN], 2005).
- BN Solid Waste Operations Work Packages.
- NNSA/NSO Real Estate/Operation Permit.

2.2 WASTE CLASSIFICATION ACTIVITIES

The stained area at CAS 19-44-04 was the only site that required waste classification sampling prior to performing remediation activities. (Note: International Technology [IT] Corporation collected a waste classification sample from waste piles at CAS 19-99-05, 19-99-07, 19-99-08, and 19-99-10 in 1997. See Section 2.3). Therefore on May 19, 2005, one soil sample was collected from the area of stained soil. The sample was placed into a laboratory-approved container and submitted for analysis for total petroleum hydrocarbons (TPH), toxicity characteristic leaching procedure (TCLP) volatile organic compounds (VOCs), TCLP semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), TCLP *Resource Conservation and Recovery Act* (RCRA) metals, and gamma-emitting radioisotopes. The only contaminants identified as present at concentrations above action levels were TPH. Analytical results for the waste classification sample are summarized in Table 1 and copies of the analytical sample results are included in Appendix A.

TABLE 1. SUMMARY OF ANALYTICAL RESULTS FOR WASTE CLASSIFICATION SAMPLE

SAMPLE IDENTIFICATION	TPH (mg/kg)	TCLP RCRA metals (mg/L)	PCBs (µg/kg)	TCLP VOCs (µg/L)	TCLP SVOCs (µg/L)	Gamma Emitters (pCi/g)
194404-1	59,000	All < 0.5	All < 15 All ND	All < 50 All ND	All < 50 All ND	All at background levels

mg/kg = milligrams per kilogram
mg/L = milligrams per liter
µg/kg =micrograms per kilogram
µg/L = micrograms per liter
pCi/g = picocuries per gram
ND = Not Detected

2.3 SITE CLOSURE ACTIVITIES

Appendix B includes the Housekeeping Site Closure Verification Forms for each CAS, including site information and before-and-after site photographs.

2.3.1 CAS 19-19-04: Concrete Spill

A concrete spill could not be located at the site either during the Preliminary Assessment or subsequent site visits. Because no housekeeping waste could be located on site, no further action is required at this site.

2.3.2 CAS 19-25-03: Oil Spills

On June 27, 2005, the oil filters and empty oil containers were removed from the site along with approximately two cubic feet (ft^3) of hydrocarbon-impacted soil which were removed using shovels. Based on visual observations and hydrocarbon screening using a PetroFlag® kit, it was determined that a backhoe would be required to complete remediation at the site. Therefore, on August 19, 2005 an additional five cubic yards (yd^3) of hydrocarbon-impacted soil were removed from two separate stained areas and transported to the Area 6 Hydrocarbon Landfill for disposal. The excavations were approximately two to three feet in depth. Three verification samples (192503-V1, 192503-V2, and 192503-V3) were collected from the bottom of the excavations and screened using a PetroFlag®. Based on the TPH screening results, the three samples were submitted to an offsite laboratory for TPH full scan analysis. Laboratory results showed TPH concentrations remaining on site are less than the Nevada Division of Environmental Protection (NDEP) action level of 100 milligrams per kilograms (mg/kg) for TPH in soil. The excavations were backfilled and no further action is required at this site.

2.3.3 CAS 19-44-02: Fuel Spill

On June 26, 2005, less than 0.5 ft^3 of hydrocarbon-impacted soil was removed from the concrete pad and transported to the Area 6 Hydrocarbon Landfill for disposal. The soil had been located in the center of the pad and no cracks in the concrete were observed. Therefore, no soil verification samples could be collected. No further action is required at this site.

2.3.4 CAS 19-44-04: U-19bk Drill Site Release

On August 19, 2005, approximately 4 yd^3 of hydrocarbon-impacted soil were excavated to a depth of 3 feet and transported to the Area 6 Hydrocarbon Landfill for disposal. Two verification soil samples were collected from the excavation and screened for TPH using a PetroFlag® kit. Based on the screening results, the samples were submitted to an offsite laboratory for TPH full scan analysis. Laboratory results showed TPH concentrations remaining on site at concentrations less than the NDEP action level of 100 mg/kg for TPH in soil. No further action is required at this site.

2.3.5 CAS 19-44-05: U-19bh Drill Site Release

Evidence of an oil spill could not be located at the site either during the Preliminary Assessment or during subsequent site visits. Because no housekeeping waste could be located on site, no further action is required at this site.

2.3.6 CAS 19-99-05: Pile; Unknown Material

Sample ERS00095 was collected on August 26, 1997 by IT Corporation from the pile of unknown material for waste classification. The sample was submitted to an off-site laboratory for total VOCs, total SVOCs, TPH-diesel/oil, total RCRA metals, total PCBs, gross alpha/beta, and gamma spectroscopy analysis. All analytical results were less than hazardous and radiological waste level; the material was determined to be non-hazardous and non-radiologically impacted. Copies of the sample results are available in the CAU 395 project files maintained by SNJV.

On November 15, 2004 a site visit was made by NDEP, NNSA/NSO and BN personnel. Based on the remoteness of the site, the analytical results for the waste classification sample, and because removing the waste would constitute a ground disturbance according to the Sectored Clean-up Work Plan (NNSA/NSO, 2003), it was agreed that the CAS would be closed by taking no further action. A copy of the Sectored Housekeeping Site Closure Verification Form is included in Appendix B of this report.

2.3.7 CAS 19-99-07: Cement Spill

Sample ERS00172 was collected on August 28, 1997 by IT Corporation from a cement spill for waste classification. The sample was submitted to an off-site laboratory for total VOCs, total SVOCs, TPH-diesel/oil, total RCRA metals, total PCBs, gross alpha/beta, and gamma spectroscopy analysis. All analytical results were less than hazardous and radiological waste level; the material was determined to be non-hazardous and non-radiologically impacted. Copies of the sample results are available in the CAU 395 project files maintained by SNJV.

On November 15, 2004 a site visit was made by NDEP, NNSA/NSO and BN personnel. Based on the remoteness of the site, the analytical results for the waste classification sample, and because removing the waste would constitute a ground disturbance according to the Sectored Clean-up Work Plan (NNSA/NSO, 2003), it was agreed that the CAS would be closed by taking no further action. A copy of the Sectored Housekeeping Site Closure Verification Form is included in Appendix B of this report.

2.3.8 CAS 19-99-08: Cement Spill

Sample ERS00123 was collected on August 26, 1997 by IT Corporation from the north side of a cement spill for waste classification. The sample was submitted to an off-site laboratory for total RCRA metals, gross alpha/beta, and gamma spectroscopy analysis. All analytical results were less than hazardous and radiological waste level; the material was determined to be non-hazardous and non-radiologically impacted. Copies of the sample results are available in the CAU 395 project files maintained by SNJV.

On November 15, 2004 a site visit was made by NDEP, NNSA/NSO and BN personnel. Based on the remoteness of the site, the analytical results for the waste classification sample, and because removing the waste would constitute a ground disturbance according to the Sectored Clean-up Work Plan (NNSA/NSO, 2003), it was agreed that the CAS would be closed by taking no further action. A copy of the Sectored Housekeeping Site Closure Verification Form is included in Appendix B of this report.

2.3.9 CAS 19-99-10: Cement Spill

Sample ERS00124 was collected on August 26, 1997 by IT Corporation from the down slope edge of the pile and consisted of buff-colored silt/soil for waste classification. The sample was submitted to an off-site laboratory for total RCRA metals, gross alpha/beta, and gamma spectroscopy analysis. All analytical results were less than hazardous and radiological waste level; the material was determined to be non-hazardous and non-radiologically impacted. Copies of the sample results are available in the CAU 395 project files maintained by SNJV.

On November 15, 2004 a site visit was made by NDEP, NNSA/NSO and BN personnel. Based on the remoteness of the site, the analytical results for the waste classification sample, and because removing the waste would constitute a ground disturbance according to the Sectored Clean-up Work Plan (NNSA/NSO, 2003), it was agreed that the CAS would be closed by taking no further action. A copy of the Sectored Housekeeping Site Closure Verification Form is included in Appendix B of this report.

3.0 WASTE DISPOSITION

Waste generated during the closure of CAU 395 was disposed as follows:

- CAS 19-25-03, Oil Spills: Approximately 5 yd^3 of hydrocarbon-impacted soil and miscellaneous used oil filters and containers were transported to the Area 6 Hydrocarbon Landfill for disposal.
- CAS 19-44-02, Fuel Spill: Less than 0.5 ft^3 of hydrocarbon-impacted soil were transported to the Area 6 Hydrocarbon Landfill for disposal.
- CAS 19-44-04, U-19bk Drill Site Release: Approximately 4 yd^3 of hydrocarbon-impacted soil were transported to the Area 6 Hydrocarbon Landfill for disposal.

THIS PAGE INTENTIONALLY LEFT BLANK

4.0 CLOSURE VERIFICATION

Closure activities at two CASs (CAS 19-25-03 and CAS 19-44-04) included collecting soil verification samples. Copies of the analytical results for the verification samples are included in Appendix A. Copies of the Sectored Housekeeping Site Closure Verification Forms for the CASs are included in Appendix B.

Samples were collected from locations after the removal of waste, or from the surface in the location of waste that was previously removed. The samples were collected with clean disposable plastic scoops, placed in labeled sample containers, and secured with custody seals. The sample containers were placed on ice in a cooler and maintained at less than 4 degrees Celsius. The samples were then transported under chain of custody to the BN Sample Management Group in Mercury, Nevada, and shipped to an offsite laboratory for analysis.

At CAS 19-25-03, three verification samples (192503-V1, 192503-V2, and 192503-V3) were collected on August 19, 2005, from the bottom of the shallow excavation. At CAS 19-44-04, two verification samples (194404-V1 and 194404-V2) were collected on August 19, 2005, from the bottom of the shallow excavation. In addition, a duplicate sample was collected from the location of sample 194404-V2.

All six soil samples were submitted for laboratory analysis of TPH full scan. Laboratory results showed that the sites are clean of any TPH above the NDEP action level of 100 mg/kg. The analytical results for the soil verification samples are summarized in Table 2.

TABLE 2. SUMMARY OF ANALYTICAL RESULTS FOR SOIL VERIFICATION SAMPLES

SAMPLE IDENTIFICATION	SAMPLE DEPTH (feet)	DRO (mg/kg)	GRO (mg/kg)	ORO (mg/kg)
TPH Action Level		100	100	100
192503-V1	2	4.1	<0.036	<14.8
192503-V2	2	13.0	<0.039	22.0
192503-V3	2.5	<4.3	<0.03	<12.9
194404-V1	3	<4.1	<0.03	<12.3
194404-V2	3	5.6	<0.033	13.0
DUP A (Duplicate of 194404-V2)	3	10.0	<0.033	26.0

DRO – Diesel Range Organics
GRO – Gasoline Range Organics
ORO – Motor Oil Range Organics
mg/kg = milligrams per kilogram
Total Petroleum Hydrocarbons samples analyzed by U.S. Environmental Protection Agency SW-846 Method 8015. See analytical reports in Appendix A for laboratory detection limits.

THIS PAGE INTENTIONALLY LEFT BLANK

5.0 SUMMARY AND RECOMMENDATIONS

5.1 SUMMARY

The following closure activities were completed at the CAU 395 CASs:

- CAS 19-19-04, Concrete Spill: A concrete spill could not be located at the site. Therefore, no action was taken.
- CAS 19-25-03, Oil Spills: Approximately 5 yd^3 of hydrocarbon-impacted soil as well as various used oil filters were removed and transported to the Area 6 Hydrocarbon Landfill for disposal.
- CAS 19-44-02, Fuel Spill: Less than 0.5 ft^3 of hydrocarbon-impacted soil was removed from a concrete pad and transported to the Area 6 Hydrocarbon Landfill for disposal.
- CAS 19-44-04, U-19bk Drill Site Release: Approximately 4 yd^3 of hydrocarbon-impacted soil were removed from the site and transported to the Area 6 Hydrocarbon Landfill for disposal.
- CAS 19-44-05, U-19bh Drill Site Release: Evidence of an oil spill could not be found at the site. Therefore, no action was taken.
- CAS 19-99-05, Pile; Unknown Material: Based on previous sampling activities by IT Corporation, the material was deemed non-hazardous. Therefore, due to the remote location of the material, no action was taken per an agreement between the NNSA/NSO and NDEP.
- CAS 19-99-07, Cement Spill: Based on previous sampling activities by IT Corporation the material was deemed non-hazardous. Therefore, due to the remote location of the material, no action was taken per an agreement between the NNSA/NSO and NDEP.
- CAS 19-99-08, Cement Spill: Based on previous sampling activities by IT Corporation the material was deemed non-hazardous. Therefore, due to the remote location of the material, no action was taken per an agreement between the NNSA/NSO and NDEP.
- CAS 19-99-10: Cement Spill: Based on previous sampling activities by IT Corporation the material was deemed non-hazardous. Therefore, due to the remote location of the material, no action was taken per an agreement between the NNSA/NSO and NDEP.

5.2 RECOMMENDATIONS

Because closure activities for CAU 395 have been completed following the NDEP-approved *Sectored Clean-up Work Plan for Housekeeping Category Waste Sites* (NNSA/NSO, 2003) as documented in this report, NNSA/NSO requests the following:

1. NDEP provide a "Notice of Completion" to NNSA/NSO for the closure of CAU 395.
2. CAU 395 be transferred from Appendix III to Appendix IV of the FFACO *Closed Corrective Action Units* (FFACO, 1996).

THIS PAGE INTENTIONALLY LEFT BLANK

6.0 REFERENCES

BN, see Bechtel Nevada.

Bechtel Nevada. 2005. Site-Specific Health and Safety Plan for Corrective Action Sites 167, 210, 286, 390, and 395, Nevada Test Site, Nevada, Rev. 1. Las Vegas, NV.

FFACO, see Federal Facility Agreement and Consent Order.

Federal Facility Agreement and Consent Order. 1996 (as amended). Agreed to by the State of Nevada, U.S. Department of Energy, and U.S. Department of Defense.

NNSA/NSO, see U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office.

U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office. 2005. Generic Field Management Plan for Housekeeping Category Waste Sites, Rev 2. Las Vegas, NV.

U.S. Department of Energy, National Nuclear Security Administration Nevada Site Office. 2003. Sectored Clean-up Work Plan for Housekeeping Category Waste Sites, DOE/NV--579-REV-3. Las Vegas, NV.

THIS PAGE INTENTIONALLY LEFT BLANK

APPENDIX A

SAMPLE ANALYTICAL RESULTS

THIS PAGE INTENTIONALLY LEFT BLANK

05051 574

Bechtel Nevada

ANALYTICAL LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT/CLIENT INFORMATION

Project: CAU 395 | BN Org #: B502
Charge Number: 5H09AH50
Project Manager: Jeff Smith
Phone: 702-295-7775 | Fax: 702-295-7761 | M/S: NTS306

REPORT & TURNAROUND INFORMATION

Send Report to: Reed Poderis
Phone: 702-295-0847 | Fax: 702-295-7761 | M/S: NTS306
Turnaround: ☐ Standard - 14 days IH, 28 days Non-rad Env, 45 Days Rad Env,
☒ Rush Preliminary by: _____ (IH)
☐ 1 ☐ 2 ☒ 7 ☐ 14 (non-Rad Env)
☐ 1 ☐ 7 ☐ 14 ☐ 28 (Radiological Env)

SAMPLE INFORMATION

Sampling Site: CAU 395
The samples submitted contain (check):
☐ **Hazardous** *(list)* - _____
☐ **Radioactive** *(list)* - _____
☒ **Unknown** contamination.
If known, identify contaminants.
This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.

SAMPLE MANAGEMENT INFORMATION

SDG: _____ (IH) V2478 (Non-Rad Env) _____ (Rad Env)
Samples submitted are associated with a signed Project SOW ☒ Yes ☐ No
Analyses entered here agree with the SOW ☒ Yes ☐ No ☐ N/A
If not, identify the variation: _____
Subcontract Lab(s) used for this work: LIONVILLE

ID/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	CONTAINER #	CONTAINER Est. Vol	QC MD	QC MS	QC MSD	Pres - Analysis eg. HCl - VOCs	Pay Item, Analysis, Method: 10.52 TPH ~~DRO~~ ~~8015~~ Full Scan RSP SVOA	9.23 TCLP RCRA Metals 6010	8.1 PCBs	6.11 TCLP VOCs	7.3 TCLP SVOC	1.31 VOCs		
199904-T (19404-1 RSP 7/13/05	5-19-2005	1400	Soil	5	40 oz				ice	X	X	X	X	X			
Trip Blank A	5-19-2005	-	Water	2	80 ml				ice, H2SO4						X		
LAST ITEM																	

CUSTODY TRANSFER

Sampled/Relinquished (print)	Signature	Date/Time	Received by (print)	Signature	Date/Time
Reed J. Poderis		~~5-19-05 5pm~~ ~~4-21-05 1400~~	Locked ER Refridgerator	NA	~~5-19-05 3pm~~ ~~4-21-05 1400~~
Refridgerator	RSP	5-23-05 0900	Reed Poderis		5-23-05 0900
Reed Poderis		5-23-05 0900	CA CASTANEDA	CA Castaneda	5/23/05 @ 0915
CA CASTANEDA	CA Castaneda	5/23/05 @ 1300	FedEx	791080715209	5/23/05 @ 1300
FedEx		5/24/05 @ 0935	VICTOR HERLAN DEZ		5-24-05 @ 0935

Retention Code: ENV 5.c(1)

BN-0732 (04/02)

LIONVILLE LABORATORY INC.

Case Narrative

Client: BECHTEL-NEVADA V2478
LVL #: 0505L574

W.O. #: 60052-001-001-0001-00
Date Received: 05-24-2005

GRO

One (1) soil sample was collected on 05-19-2005.

The sample and its associated QC samples were analyzed according to Lionville Laboratory SOPs based on SW-846 method 8015B for Gasoline Range Organics (GRO) on 05-31-2005.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. All results presented in this report are derived from a sample that met LVLI's sample acceptance policy.

2. The sample was analyzed within required holding time.

3. The method blank was below the reporting limit for the target compound.

4. All surrogate recoveries were within acceptance criteria.

5. The blank spike recovery was within acceptance criteria.

6. The matrix spike recoveries were outside acceptance criteria. A copy of the Sample Discrepancy Report (SDR) has been enclosed.

7. All initial calibrations associated with this data set were within acceptance criteria.

8. The continuing calibration standard analyzed prior to sample extracts were within acceptance criteria.

9. LvLI is NELAP accredited by the state of Pennsylvania and holds over 20 additional state accreditations. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

6/15/05
Date

Lionville Laboratory, Inc.

GAS RANGE ORGANICS

RFW Batch Number: **0505L574** Client: **BECHTEL NEVADA V2478** Work Order: 60052001001 Page: 1 Report Date: 06/09/05 09:51

	Cust ID:	194404-1	194404-1	194404-1	TBLKUY	TBLKUY BS
Sample Information	RFW#:	001	001 MS	001 MSD	05LVJ531-MB1	05LVJ531-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Fluorobenzene		61 %	54 %	48 %	98 %	98 %
Gasoline Range Organics (GRO)		33 U	30 * %	28 * %	30 U	104 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

LIONVILLE LABORATORY INC.

Case Narrative

Client: BECHTEL-NEVADA V2478
LVL #: 0505L574

W.O. #: 60052-001-001-0001-00
Date Received: 05-24-2005

DIESEL RANGE ORGANICS

One (1) soil sample was collected on 05-19-2005.

The sample and its associated QC samples were extracted on 05-29-2005 and analyzed according to Lionville Laboratory SOPs on 05-31-2005 and 06-01-2005. The extraction procedure was based on method 3540C and the extracts were analyzed based on method 8015B for Diesel Range Organics.

1. All results presented in this report are derived from a sample that met LvLI's sample acceptance policy.

2. The sample was extracted and analyzed within required holding time.

3. The method blank was below the reporting limits for all target compounds.

4. All obtainable surrogate recoveries were within acceptance criteria.

5. The blank spike recovery was within acceptance criteria.

6. The matrix spike recoveries were unobtainable due to the dilution required for the analysis.

7. The sample required a dilution due to high concentration of target analytes.

8. The initial calibrations associated with this data set were within acceptance criteria.

9. The continuing calibration standard analyzed prior to sample extracts were within acceptance criteria.

10. LvLI is NELAP accredited by the state of Pennsylvania and holds over 20 additional state accreditations. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

6/15/05
Date

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

Report Date: 06/10/05 10:23

RFW Batch Number: **0505L574** Client: **BECHTEL NEVADA V2478** Work Order: 60052001001 Page: 1

	Cust ID:	194404-1	194404-1	194404-1	BLK	BLK BS
Sample Information	RFW#:	001	001 MS	001 MSD	05LE0435-MB1	05LE0435-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	200	200	200	1.00	1.00
	Units:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
p-Terphenyl		D %	D %	D %	82 %	79 %
Diesel Range Organics		0.19E+08	D %	D %	12000 U	82 %
Motor Oil Range Organics		0.40E+08	0.43E+08	0.30E+08	12000 U	NS

6/13/05

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

LIONVILLE LABORATORY INC.

Analytical Report

Client : BECHTEL NEVADA V2478
LVL# : 0505L574

W.O.# : 60052-001-001-001-0001-00
Date Received : 05-24-05

SW846 METALS

1. This narrative covers the analysis of 1 TCLP leachate sample.

2. The sample was prepared and analyzed in accordance with SW-846 protocol and reported with a CLP deliverable. The sample was reported with a six fold dilution for ICP analytes due to sample matrix.

3. ICVs, CCVs, and LCSs stock standards were purchased from Inorganic Ventures Laboratory and High Purity.

4. All analyses were performed within the required holding times.

5. All results presented in this report are derived from samples that met LvLI's sample acceptance policy.

6. All Initial and Continuing Calibration Verifications (ICV/CCVs) were within control limits.

7. All Initial and Continuing Calibration Blanks (ICB/CCBs) were within method criteria.

8. All preparation/method blanks were within method criteria. Refer to form 3.

9. All ICP Interference Check Standards were within control limits. Refer to form 4.

10. All laboratory control samples (LCS) were within the 80-120% control limits. Refer to form 7.

11. All serial dilution percent differences were within SW-846 control limits. Refer to form 9.

12. The TCLP extract from sample 194404-1 was selected for the matrix spike (MS) for this analytical batch. The MS recoveries for all analytes in the TCLP extract were above 50% per method criteria.

13. All sample IDs were changed to accommodate the EPA naming convention which allows a maximum of 6 characters on all CLP Forms. Refer to the comments section of form 1 for the original ID.

14. LvLI is NELAP accredited by the state of Pennsylvania and holds over 20 additional state accreditations. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

6/15/05
Date

gmb\m05-574

U.S. EPA

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

194404

Lab Name: LIONVILLE_LABORATORY_____ Contract: 60052_____
Lab Code: LVLI__ Case No.: V2478 SAS No.: _____ SDG No.: 194404
Matrix (soil/water): WATER Lab Sample ID: 0505L574-004
Level (low/med): LOW__ Date Received: 05/24/05
% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7440-38-2	Arsenic__	28.2	_		P_
7440-39-3	Barium___	400	_		P_
7440-43-9	Cadmium__	1.9	_		P_
7440-47-3	Chromium_	4.6	_		P_
7439-92-1	Lead_____	63.3	_		P_
7439-97-6	Mercury__	0.10	U		AV
7782-49-2	Selenium_	29.4	U		P_
7440-22-4	Silver___	5.4	U		P_

Color Before: _____ Clarity Before: _____ Texture: _____
Color After: _____ Clarity After: _____ Artifacts: _____

Comments: 1/2 MW 6/15/05
194404-1
TCLP_OF_001

U.S. EPA

2A

INITIAL AND CONTINUING CALIBRATION VERIFICATION

Lab Name: LIONVILLE_LABORATORY_____ Contract: 60052_____

Lab Code: LVLI__ Case No.: V2478 SAS No.: _____ SDG No.: 194404

Initial Calibration Source: IV_____

Continuing Calibration Source: IV_____

Concentration Units: ug/L

Analyte	Initial Calibration True	Initial Calibration Found	Initial Calibration %R(1)	Continuing Calibration True	Continuing Calibration Found	Continuing Calibration %R(1)	Continuing Calibration Found	Continuing Calibration %R(1)	M
Arsenic	375.0	371.36	99.0	500.0	506.30	101.3	488.45	97.7	P
Barium	375.0	366.10	97.6	500.0	476.00	95.2	481.28	96.3	P
Cadmium	375.0	378.74	101.0	500.0	520.74	104.1	478.29	95.7	P
Chromium	375.0	370.44	98.8	500.0	508.05	101.6	476.76	95.4	P
Lead	375.0	381.08	101.6	500.0	523.04	104.6	493.93	98.8	P
Mercury	2.5	2.62	104.8	5.0	5.11	102.2	5.21	104.2	AV
Selenium	375.0	377.29	100.6	500.0	525.08	105.0	518.96	103.8	P
Silver	375.0	369.10	98.4	500.0	497.77	99.6	489.36	97.9	P

LIONVILLE LABORATORY INC.

Case Narrative

Client: BECHTEL-NEVADA V2478
LVL #: 0505L574

W.O. #: 60052-001-001-0001-00
Date Received: 05-24-2005

PCB

One (1) soil sample was collected on 05-19-2005.

The sample and its associated QC samples were extracted on 05-30-2005 and analyzed according to Lionville Laboratory SOPs on 06-01-2005. The extraction procedure was based on method 3540C and the extracts were analyzed based on method 8082.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

1. All results presented in this report are derived from a sample that met LVLI's sample acceptance policy.

2. The required holding time for extraction and analysis was met.

3. The sample and its associated QC samples received Copper-Sulfur and Sulfuric Acid cleanups according to Lionville Laboratory SOPs based on SW846 methods 3660A and 3665A respectively.

4. The method blank was below the reporting limits for all target compounds.

5. All surrogate recoveries were within acceptance criteria.

6. All blank spike recoveries were within acceptance criteria.

7. All matrix spike recoveries were outside acceptance criteria. A copy of the Sample Discrepancy Report (SDR) has been enclosed.

8. The initial calibration associated with this data set was within acceptance criteria.

9. The continuing calibration standard analyzed prior to sample extract was within acceptance criteria.

10. LvLI is NELAP accredited by the state of Pennsylvania and holds over 20 additional state accreditations. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

6/15/05
Date

Lionville Laboratory, Inc.

PCBs by GC

Report Date: 06/09/05 10:13

RFW Batch Number: **0505L574** Client: **BECHTEL NEVADA V2478** Work Order: 60052001001 Page: 1

	Cust ID:	194404-1	194404-1	194404-1	PBLKME	PBLKME BS	PBLKME BSD
Sample Information	RFW#:	001	001 MS	001 MSD	05LE0437-MB1	05LE0437-MB1	05LE0437-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Surrogate:	Tetrachloro-m-xylene	48 %	54 %	50 %	85 %	66 %	85 %
	Decachlorobiphenyl	48 %	54 %	50 %	105 %	100 %	113 %
		fl	fl	fl	fl	fl	fl
Aroclor-1016		15 U	53 * %	47 * %	13 U	72 %	94 %
Aroclor-1221		15 U	15 U	15 U	13 U	13 U	13 U
Aroclor-1232		15 U	15 U	15 U	13 U	13 U	13 U
Aroclor-1242		15 U	15 U	15 U	13 U	13 U	13 U
Aroclor-1248		15 U	15 U	15 U	13 U	13 U	13 U
Aroclor-1254		15 U	15 U	15 U	13 U	13 U	13 U
Aroclor-1260		15 U	59 * %	37 * %	13 U	83 %	84 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

LIONVILLE LABORATORY INC.

Case Narrative

Client: BECHTEL-NEVADA V2478
LVL #: 0505L574

W.O. #: 60052-001-001-0001-00
Date Received: 05-24-2005

GC/MS VOLATILE-TCLP

The set of samples consisted of one (1) water and one (1) leachate samples.

The leachate sample was generated on 05-28-2005 from a soil sample collected on 05-19-2005.

The samples and their associated QC samples were analyzed according to criteria set forth in Lionville Laboratory SOPs based on SW 846 Method 8260B for TCLP Volatile target compounds on 05-30,31-2005.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

1. All results presented in this report are derived from samples that met LvLI's sample acceptance policy.

2. The required holding time for analysis was met.

3. The sample was diluted 5-fold due to the leachate sample matrix.

4. All surrogate recoveries were within acceptance criteria.

5. All matrix spike recoveries were within acceptance criteria.

6. All blank spike recoveries were within acceptance criteria.

7. Internal standard area and retention time criteria were met.

8. Manual integrations are performed according to SOP QA-125 to produce quality data with the utmost integrity. All manual integrations are required to be technically valid and properly documented. Appropriate technical flags are defined in the Glossary ("Technical Flags For Manual Integration").

9. LvLI is NELAP accredited by the state of Pennsylvania and holds over 20 additional state accreditations. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

6/10/05
Date

Lionville Laboratory, Inc.

Volatiles by GC/MS, TCLP Leachate — Report Date: 05/31/05 16:16

RFW Batch Number: **0505L574** Client: **BECHTEL NEVADA V2478** Work Order: 60052001001 Page: 1a

	Cust ID:	**TRIP BLANK A**		**194404-1**		**194404-1**		**VBLKTT**		**VBLKTT BS**		**VBLKTP**	
Sample Information	RFW#:	**002**		**003**		**003 MS**		**05LXV121-MB1**		**05LXV121-MB1**		**05LTV042-LB1**	
	Matrix:	WATER		WATER		WATER		WATER		WATER		WATER	
	D.F.:	1.00		5.00		5.00		1.00		1.00		5.00	
	Units:	MG/L		MG/L		MG/L		MG/L		MG/L		MG/L	
Surrogate Recovery	Toluene-d8	104	%	104	%	100	%	105	%	99	%	105	%
	Bromofluorobenzene	110	%	104	%	110	%	108	%	110	%	109	%
	1,2-Dichloroethane-d4	100	%	95	%	103	%	96	%	103	%	95	%
Vinyl Chloride		0.010	U	0.050	U	96	%	0.010	U	91	%	0.050	U
1,1-Dichloroethene		0.005	U	0.025	U	108	%	0.005	U	102	%	0.025	U
Chloroform		0.005	U	0.025	U	110	%	0.005	U	101	%	0.025	U
1,2-Dichloroethane		0.005	U	0.025	U	104	%	0.005	U	98	%	0.025	U
2-Butanone		0.010	U	0.050	U	118	%	0.010	U	119	%	0.050	U
Carbon Tetrachloride		0.005	U	0.025	U	109	%	0.005	U	105	%	0.025	U
Trichloroethene		0.005	U	0.025	U	101	%	0.005	U	94	%	0.025	U
Benzene		0.005	U	0.025	U	108	%	0.005	U	99	%	0.025	U
Tetrachloroethene		0.005	U	0.025	U	106	%	0.005	U	97	%	0.025	U
Chlorobenzene		0.005	U	0.025	U	102	%	0.005	U	99	%	0.025	U

*= Outside of EPA CLP QC limits.

Lionville Laboratory, Inc.

Volatiles by GC/MS, TCLP Leachate

Report Date: 05/31/05 16:16

RFW Batch Number: **0505L574** Client: **BECHTEL NEVADA V2478** Work Order: 60052001001 Page: 2a

	Cust ID:	**VBLKTK**		**VBLKTK BS**		
Sample Information	RFW#:	**05LVX120-MB1**		**05LVX120-MB1**		
	Matrix:	WATER		WATER		
	D.F.:	1.00		1.00		
	Units:	MG/L		MG/L		
Surrogate Recovery	Toluene-d8	99	%	102	%	
	Bromofluorobenzene	104	%	113	%	
	1,2-Dichloroethane-d4	94	%	102	%	
Vinyl Chloride		0.010	U	92	%	
1,1-Dichloroethene		0.005	U	102	%	
Chloroform		0.005	U	102	%	
1,2-Dichloroethane		0.005	U	101	%	
2-Butanone		0.010	U	124	%	
Carbon Tetrachloride		0.005	U	104	%	
Trichloroethene		0.005	U	98	%	
Benzene		0.005	U	101	%	
Tetrachloroethene		0.005	U	103	%	
Chlorobenzene		0.005	U	104	%	

*= Outside of EPA CLP QC limits.

LIONVILLE LABORATORY INC.

Case Narrative

Client: BECHTEL-NEVADA V2478
LVL #: 0505L574

W.O. #: 60052-001-001-0001-00
Date Received: 05-24-2005

SEMIVOLATILE-TCLP

One (1) leachate sample was generated on 05-28-2005 from a soil sample collected on 05-19-2005.

The sample and its associated QC samples were extracted according to Lionville Laboratory SOPs based on SW 846 method 3520C on 05-29-2005 and analyzed according to criteria set forth in Lionville Laboratory SOPs based on method 8270C for TCLP Semivolatile target compounds on 05-31-2005 and 06-01-2005.

The following is a summary of the QC results accompanying the sample results and a description of any problems encountered during their analyses:

1. All results presented in this report are derived from a sample that met LvLI's sample acceptance policy.

2. The sample was extracted and analyzed within required holding time.

3. The sample was extracted at a 5-fold dilution (200mL has been used instead of 1000mL) due to the leachate sample matrix.

4. Two (2) of twenty-four (24) surrogate recoveries were outside acceptance criteria. However, the surrogate recovery criteria were met (i.e., no more than one outlier per fraction {acid and base neutral} and no recoveries less than 10%).

5. One (1) of twelve (12) blank spike recoveries was outside acceptance criteria.

6. Internal standard area criteria were not met for the method blank and the blank spike samples. The GC/MS instrument was inspected for possible malfunction and was judged to be functioning properly.

7. Manual integrations are performed according to SOP QA-125 to produce quality data with the utmost integrity. All manual integrations are required to be technically valid and properly documented. Appropriate technical flags are defined in the Glossary ("Technical Flags For Manual Integration").

8. LvLI is NELAP accredited by the state of Pennsylvania and holds over 20 additional state accreditations. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

6/10/05
Date

Lionville Laboratory, Inc.

Semivolatiles by GC/MS, TCLP Leachate — Report Date: 06/02/05 10:36

RFW Batch Number: **0505L574** — Client: **BECHTEL NEVADA V2478** — Work Order: 60052001001 — Page: 1a

	Cust ID:	**194404-1**	**SBLKKH**	**SBLKKH BS**	**LCHBLK**
Sample Information	RFW#:	**004**	**05LE0438-MB1**	**05LE0438-MB1**	**05LTO078-LB1**
	Matrix:	WATER	WATER	WATER	WATER
	D.F.:	1.00	1.00	1.00	1.00
	Units:	mg/L	mg/L	mg/L	mg/L
Surrogate Recovery	Nitrobenzene-d5	60 %	49 %	61 %	45 %
	2-Fluorobiphenyl	44 %	34 * %	56 %	31 * %
	p-Terphenyl-d14	85 %	73 %	104 %	64 %
	Phenol-d5	60 %	47 %	50 %	46 %
	2-Fluorophenol	65 %	55 %	68 %	47 %
	2,4,6-Tribromophenol	70 %	53 %	68 %	46 %
Pyridine		0.050 U	0.050 U	11 %	0.050 U
1,4-Dichlorobenzene		0.050 U	0.050 U	32 * %	0.050 U
2-Methylphenol		0.050 U	0.050 U	57 %	0.050 U
3- and/or 4-Methylphenol		0.050 U	0.050 U	58 %	0.050 U
Hexachloroethane		0.050 U	0.050 U	28 %	0.050 U
Nitrobenzene		0.050 U	0.050 U	62 %	0.050 U
Hexachlorobutadiene		0.050 U	0.050 U	29 %	0.050 U
2,4,6-Trichlorophenol		0.050 U	0.050 U	83 %	0.050 U
2,4,5-Trichlorophenol		0.12 U	0.12 U	82 %	0.12 U
2,4-Dinitrotoluene		0.050 U	0.050 U	86 %	0.050 U
Hexachlorobenzene		0.050 U	0.050 U	81 %	0.050 U
Pentachlorophenol		0.12 U	0.12 U	69 %	0.12 U

*= Outside of EPA CLP QC limits.

Bechtel Nevada

ANALYTICAL LABORATORY
SERVICES REQUEST & CHAIN OF CUSTODY RECORD

Page 1 of 1

PROJECT/CLIENT INFORMATION

Project: CAU 395 | BN Org #: B502
Charge Number: 5H09AH50
Project Manager: Jeff Smith
Phone: 702-295-7775 | Fax: 702-295-7761 | M/S: NTS306

REPORT & TURNAROUND INFORMATION

Send Report to: Reed Poderis
Phone: 702-295-0847 | Fax: 702-295-7761 | M/S: NTS306
Turnaround: ☐ Standard - 14 days IH, 28 days Non-rad Env, 45 Days Rad Env,
☒ Rush Preliminary by: _____ (IH)
☐ 1 ☒ 2 ☐ 7 ☐ 14 (non-Rad Env)
☐ 1 ☐ 7 ☐ 14 ☐ 28 (Radiological Env)

SAMPLE INFORMATION

Sampling Site: CAU 395
The samples submitted contain (check):
☐ Hazardous *(list)* - _____
☐ Radioactive *(list)* - _____
☒ Unknown contamination.
If known, identify contaminants.
This information will ensure compliance with applicable regulations and allow for the safe handling of the sample materials.

SAMPLE MANAGEMENT INFORMATION

SDG: _____ (IH) V2533 (Non-Rad Env) _____ (Rad Env)
Samples submitted are associated with a signed Project SOW ☒ Yes ☐ No
Analyses entered here agree with the SOW ☒ Yes ☐ No ☐ N/A
If not, identify the variation: _____
Subcontract Lab(s) used for this work: NONVILLE

ID/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	CONTAINER #	CONTAINER Est. Vol	QC MD	QC MS	QC MSD	Pres - Analysis eg. HCl - VOCs	Pay Item, Analysis, Method: 10.52	TPH Full Scan
192503-V1	8-19-05	0915	Soil	1	8 oz				ice		X
192503-V2	8-19-05	0920	Soil	1	8 oz				ice		X
192503-V3	8-19-05	0930	Soil	1	8 oz				ice		X
194404-V1	8-19-05	1130	Soil	1	8 oz				ice		X
194404-V2	8-19-05	1135	Soil	1	8 oz				ice		X
Dup A	8-19-05	---	Soil	1	8 oz				ice		X
LAST ITEM											

CUSTODY TRANSFER Sampled/Relinquished (print)	Signature	Date/Time	Received by (print)	Signature	Date/Time
Reed J. Poderis	Reed J. Poderis	8-19-05 1600	Locked ER Refrigerator	N/A	8-19-05 1600
Locked ER Refrigerator	N/A	8-19-05 0830	Reed J. Poderis		8-19-05 0830
Reed Poderis	Reed J. Poderis	8-19-05 1045	CA CASTANEDA	CA Castaneda	8-23-05 1049
CA CASTANEDA	CA Castaneda	8/23/05 @ 1300	Fed Ex #	790620419233	8-23-05 @ 1300
FedEx		8/24/05 0935	J PERRY	J Perry	8/24/05 0935

Retention Code: ENV 5.c(1)

BN-0732 (04/02)

LIONVILLE LABORATORY INC.

Case Narrative

Client: BECHTEL-NEVADA V2533
LVL #: 0508L221

W.O. #: 60052-001-001-0001-00
Date Received: 08-24-2005

DIESEL RANGE ORGANICS

Six (6) soil samples were collected on 08-19-2005.

The samples and their associated QC samples were extracted on 08-24-2005 and analyzed according to Lionville Laboratory SOPs on 08-26,30-2005. The extraction procedure was based on method 3540C and the extracts were analyzed based on method 8015B for Diesel Range Organics.

1. All results presented in this report are derived from samples that met LvLI's sample acceptance policy.

2. Samples were extracted and analyzed within required holding time.

3. The method blank was below the reporting limits for all target compounds.

4. All surrogate recoveries were within acceptance criteria.

5. The blank spike recovery was within acceptance criteria.

6. The matrix spike recoveries were within acceptance criteria.

7. The initial calibrations associated with this data set were within acceptance criteria.

8. The continuing calibration standard analyzed prior to sample extracts were within acceptance criteria.

9. LvLI is NELAP accredited by the state of Pennsylvania and holds over 20 additional state accreditations. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

8/31/05
Date

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

Report Date: 08/30/05 12:11

RFW Batch Number: 0508L221 Client: BECHTEL NEVADA V2533 Work Order: 60052001001 Page: 1

	Cust ID:	192503-V1	192503-V1	192503-V1	192503-V1	192503-V1	192503-V1
Sample Information	RFW#:	001	001 RE	001 MS	001 MS	001 MSD	001 MSD
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
p-Terphenyl		104 %	106 %	94 %	113 %	90 %	105 %
Diesel Range Organics		4100 J	NR	82 %	NR %NR	87 %	NR %NR
Motor Oil Range Organics		NR	14800 U	NR	NS	NR	NS

	Cust ID:	192503-V2	192503-V2	192503-V3	192503-V3	194404-V1	194404-V1
Sample Information	RFW#:	002	002 RE	003	003 RE	004	004 RE
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
p-Terphenyl		91 %	103 %	88 %	109 %	103 %	107 %
Diesel Range Organics		13000	NR	4300 U	NR	4100 U	NR
Motor Oil Range Organics		NR	22000	NR	12900 U	NR	12300 U

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked. %= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

Lionville Laboratory, Inc.

DIESEL RANGE ORGANICS BY GC

RFW Batch Number: **0508L221** Client: **BECHTEL NEVADA V2533** Work Order: 60052001001 Page: 2 Report Date: 08/30/05 12:11

	Cust ID:	194404-V2	194404-V2	DUP A	DUP A	BLK	BLK RE
Sample Information	RFW#:	005	005 RE	006	006 RE	05LE0707-MB1	05LE0707-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg
p-Terphenyl		100 %	103 %	87 %	103 %	112 %	117 %
Diesel Range Organics		5600	NR	10000	NR	4000 U	NR
Motor Oil Range Organics		NR	13000 J	NR	26000	NR	12000 U

	Cust ID:	BLK BS	BLK BS
Sample Information	RFW#:	05LE0707-MB1	05LE0707-MB1
	Matrix:	SOIL	SOIL
	D.F.:	1.00	1.00
	Units:	ug/kg	ug/kg
p-Terphenyl		92 %	106 %
Diesel Range Organics		92 %	NR %NR
Motor Oil Range Organics		NR	NS

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

LIONVILLE LABORATORY INC.

Case Narrative

Client: BECHTEL-NEVADA V2533
LVL #: 0508L221

W.O. #: 60052-001-001-0001-00
Date Received: 08-24-2005

GRO

Six (6) soil samples were collected on 08-19-2005.

The samples and their associated QC samples were analyzed according to Lionville Laboratory SOPs based on SW-846 method 8015B for Gasoline Range Organics (GRO) on 08-25-2005.

The following is a summary of the QC results accompanying these sample results and a description of any problems encountered during their analyses:

1. All results presented in this report are derived from samples that met LVLI's sample acceptance policy.

2. Samples were analyzed within required holding time.

3. The method blank was below the reporting limit for the target compound.

4. All surrogate recoveries were within acceptance criteria.

5. The blank spike recovery was within acceptance criteria.

6. The matrix spike recoveries were within acceptance criteria.

7. All initial calibrations associated with this data set were within acceptance criteria.

8. The continuing calibration standard analyzed prior to sample extracts were within acceptance criteria.

9. LvLI is NELAP accredited by the state of Pennsylvania and holds over 20 additional state accreditations. For a complete listing of accrediting authorities and the corresponding analytes/methods, please contact your Project Manager.

Iain Daniels
Laboratory Manager
Lionville Laboratory Incorporated

8/31/05
Date

Lionville Laboratory, Inc.

GAS RANGE ORGANICS

RFW Batch Number: 0508L221 Client: BECHTEL NEVADA V2533 Work Order: 60052001001 Page: 1 Report Date: 08/30/05 08:15

	Cust ID:	192503-V1	192503-V1	192503-V1	192503-V2	192503-V3	194404-V1
Sample Information	RFW#:	001	001 MS	001 MSD	002	003	004
	Matrix:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG	UG/KG
Fluorobenzene		79 %	81 %	83 %	79 %	87 %	79 %
Gasoline Range Organics (GRO)		36 U	64 %	60 %	39 U	30 U	30 U

	Cust ID:	194404-V2	DUP A	TBLKWD	TBLKWD BS
Sample Information	RFW#:	005	006	05LVJ825-MB1	05LVJ825-MB1
	Matrix:	SOIL	SOIL	SOIL	SOIL
	D.F.:	1.00	1.00	1.00	1.00
	Units:	UG/KG	UG/KG	UG/KG	UG/KG
Fluorobenzene		83 %	86 %	93 %	90 %
Gasoline Range Organics (GRO)		33 U	33 U	30 U	86 %

U= Analyzed, not detected. J= Present below detection limit. B= Present in blank. NR= Not reported. NS= Not spiked.
%= Percent recovery. D= Diluted out. I= Interference. NA= Not Applicable. *= Outside of EPA CLP QC

APPENDIX B

SECTORED HOUSEKEEPING SITE CLOSURE VERIFICATION FORMS

THIS PAGE INTENTIONALLY LEFT BLANK

Sectored Housekeeping Site Closure Verification Form

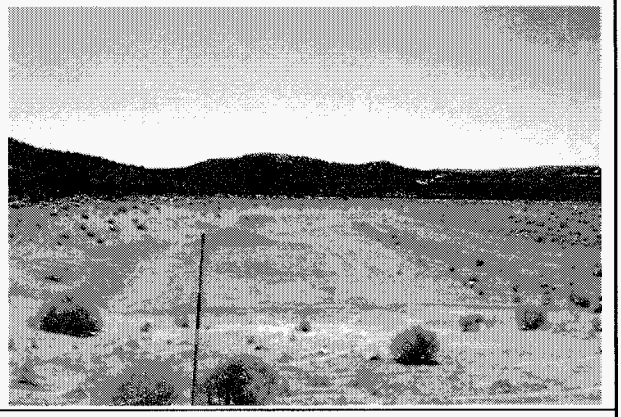
Closure Verification Date: 07/10/2003
CAU Number: 395
CAS Number: 19-19-04
CAS Description: Concrete Spill
Sector Designation: NTS Sector G
Housekeeping Site General Location: U-19bg Borrow Pit
Elevation: 2,033 meters
Northing: 4,125,182m (UTM Zone 11) **Easting:** 557,065 m (UTM Zone 11)
Latitude: 37.27147 **Longitude:** -116.35636
Coordinate/Elevation Data Obtained from: North American Datum, 1983.

Site Access Route: Mercury Highway north to Pahute Mesa Road. Turn left (west) onto Pahute Mesa Road and travel to Area 19. Proceed 4.2 miles past Dead Horse Flats Road to a dirt road on the left (south). Turn left on the dirt road and continue 0.45 mile to an open area. The borrow pit is located 0.1 mile to the east.

Waste Item(s) Originally at Site	Apparent Waste Type*
None	None

* Ordinary, Scrap Metal, Asbestos, PCB, Salvageable, Hazardous, Radioactive, Mixed, Unknown, Other

Preliminary Assessment Photograph
(taken 04/09/2002)



Current Site Condition
(taken 07/10/2003)

Current Site Description/Observations: A concrete spill was not located at the borrow pit. Therefore, no clean up activities were performed; no waste is present on site.

X No Further Action Required at Housekeeping Site

Reed J. Poderis, CEM	Reed Poderis	10/19/05
Corrective Action Coordinator/Designee	**Signature**	**Date**

Sectored Housekeeping Site Closure Verification Form

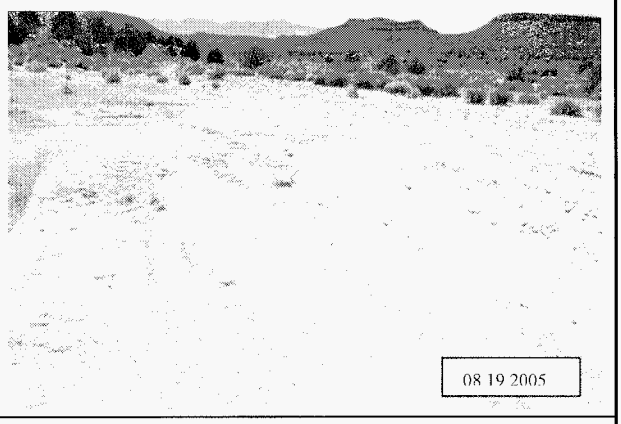
Closure Verification Date: 08/19/2005
CAU Number: 395
CAS Number: 19-25-03
CAS Description: Oil Spills
Sector Designation: NTS Sector G
Housekeeping Site General Location: RSM19 P 45
Elevation: 1,828 meters
Northing: 4,115,276 m (UTM Zone 11) **Easting:** 565,206 m (UTM Zone 11)
Latitude: 37.18165 **Longitude:** -116.26541
Coordinate/Elevation Data Obtained from: North American Datum, 1983.

Site Access Route: Mercury Highway north to Tippipah Highway. Turn left (west) on Tippipah Highway and proceed to Pahute Mesa Road. Turn left (west) on Pahute Mesa Road, continue past the Area 17 Camp, and proceed to RSM 19-P45. Turn right (east) on the dirt road at RSM 19-P45 and proceed to the gravel pad 200 ft east of Pahute Mesa Road.

Waste Item(s) Originally at Site	Apparent Waste Type*
Hydrocarbon-Impacted soil, oil filters	Hydrocarbon

* Ordinary, Scrap Metal, Asbestos, PCB, Salvageable, Hazardous, Radioactive, Mixed, Unknown, Other

Site before remediation activities
(taken 07/10/2003)



Current Site Condition
(taken 08/19/2005)

Current Site Description/Observations: The oil filters and approximately 5 cubic yards of soil were removed from the site and disposed of in the Area 6 Hydrocarbon Landfill. No waste remains on site.

X No Further Action Required at Housekeeping Site

Reed J. Poderis, CEM	Reed J. Poderis	10/19/05
Corrective Action Coordinator/Designee	**Signature**	**Date**

Sectored Housekeeping Site Closure Verification Form

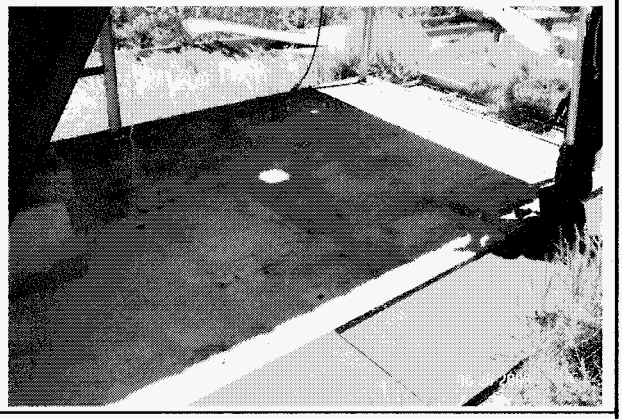
Closure Verification Date: 06/26/2005
CAU Number: 395
CAS Number: 19-44-02
CAS Description: Fuel Spill
Sector Designation: NTS Sector G
Housekeeping Site General Location: Echo Peak Station
Elevation: 2,295 meters
Northing: 4,118,708 m (UTM Zone 11) **Easting:** 560,054 m (UTM Zone 11)
Latitude: 37.21293 **Longitude:** -116.32317
Coordinate/Elevation Data Obtained from: North American Datum, 1983.

Site Access Route: Mercury Highway north to Rainier Mesa Road. Turn left (northwest) on Rainier Mesa Road and proceed to Pahute Mesa Road. Turn right (north) on Pahute Mesa Road and proceed to Echo Peak Road. Turn left (west) on Echo Peak Road and proceed to the Microwave Station. The site is to the right (south) side of the towers, at the east corner of the pad.

Waste Item(s) Originally at Site	Apparent Waste Type*
Hydrocarbon-Impacted soil	Hydrocarbon

* Ordinary, Scrap Metal, Asbestos, PCB, Salvageable, Hazardous, Radioactive, Mixed, Unknown, Other

Site before remediation activities
(taken 06/26/2005)



Current Site Condition
(taken 06/26/2005)

Current Site Description/Observations: Less than 0.5 cubic feet of hydrocarbon-impacted soil was removed from the site and disposed of at the Area 6 Hydrocarbon Landfill. No hydrocarbon-impacted soil remains on site.

_X_ No Further Action Required at Housekeeping Site

Reed J. Poderis, CEM	Reed J. Poderis	10/19/05
Corrective Action Coordinator/Designee	**Signature**	**Date**

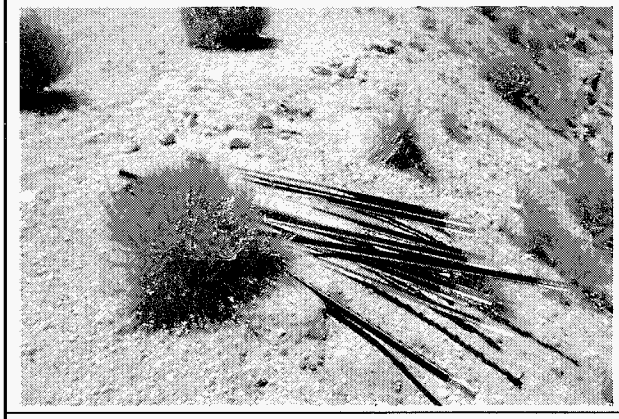
Sectored Housekeeping Site Closure Verification Form

Closure Verification Date: 08/19/2005
CAU Number: 395
CAS Number: 19-44-04
CAS Description: U-19bk Drill Site Release
Sector Designation: NTS Sector G
Housekeeping Site General Location: 19-03 Road
Elevation: 2,057 meters
Northing: 4,127,001 m (UTM Zone 11) **Easting:** 554,474 m (UTM Zone 11)
Latitude: 37.28802 **Longitude:** -116.38544
Coordinate/Elevation Data Obtained from: North American Datum, 1983.

Site Access Route: Mercury Highway north to Pahute Mesa Road. Turn left (west) on Pahute Mesa Road and continue to 19-03 Road. Turn right (north) on 19-03 Road and travel 0.6 mile to a dirt road on the left (west). Turn left on the dirt road and continue 0.2 mile to the U-19bk drill area. The site is located on the west edge of the drill area.

Waste Item(s) Originally at Site	Apparent Waste Type*
Hydrocarbon -Impacted soil	Hydrocarbon

* Ordinary, Scrap Metal, Asbestos, PCB, Salvagcable, Hazardous, Radioactive, Mixed, Unknown, Other



Site before remediation activities
(taken 07/10/2003)

Current Site Condition
(taken 08/19/2005)

Current Site Description/Observations: Approximately 4 cubic yards of hydrocarbon-impacted soil and assorted metal debris was removed from the site. The hydrocarbon-impacted soil was disposed of at the Area 6 Hydrocarbon Landfill. No waste remains on site.

_X_ No Further Action Required at Housekeeping Site

Reed J. Poderis, CEM	Reed J. Poderis	10-19-05
Corrective Action Coordinator/Designee	**Signature**	**Date**

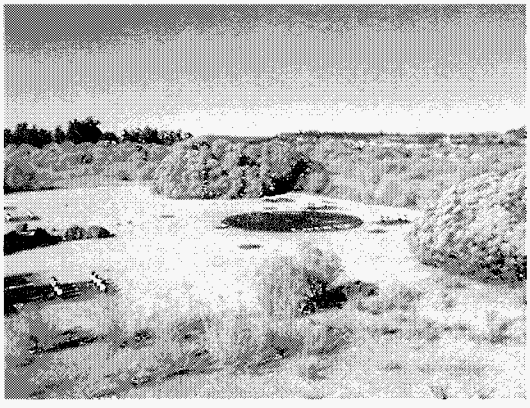
Sectored Housekeeping Site Closure Verification Form

Closure Verification Date: 07/10/2003
CAU Number: 395
CAS Number: 19-44-05
CAS Description: U-19bh Drill Site Release
Sector Designation: NTS Sector G
Housekeeping Site General Location: U-19bh
Elevation: 2,063 meters
Northing: 4,120,582 m (UTM Zone 11) **Easting:** 555,601 m (UTM Zone 11)
Latitude: 37.23009 **Longitude:** -116.37321
Coordinate/Elevation Data Obtained from: North American Datum, 1983.

Site Access Route: Mercury Highway north to Pahute Mesa Road. Turn left (west) on Pahute Mesa Road and proceed to 19-02 Road. Turn left (south) on 19-02 Road and continue 0.3 mile to a fork in the road. Take the right fork and continue 2.1 miles to the large open area. The U-19bh Cellar is in the southwest corner.

Waste Item(s) Originally at Site	Apparent Waste Type*
None	None

* Ordinary, Scrap Metal, Asbestos, PCB, Salvageable, Hazardous, Radioactive, Mixed, Unknown, Other



Preliminary Assessment Photograph
(taken 11/11/2001)

Current Site Condition
(taken 07/10/2003)

Current Site Description/Observations: Evidence of a release could not be located. Therefore, no further housekeeping activities were performed.

X No Further Action Required at Housekeeping Site

Reed J. Poderis, CEM	Reed J. Poderis	10/19/05
Corrective Action Coordinator/Designee	**Signature**	**Date**

Sectored Housekeeping Site Closure Verification Form

Closure Verification Date: 07/10/2003
CAU Number: 395
CAS Number: 19-99-05
CAS Description: Pile; Unknown Material
Sector Designation: NTS Sector G
Housekeeping Site General Location: U-19e PS
Elevation: 2,103 meters
Northing: 4,127,675 m (UTM Zone 11) **Easting:** 559,481 m (UTM Zone 11)
Latitude: 37.29379 **Longitude:** - 116.32891
Coordinate/Elevation Data Obtained from: North American Datum, 1983.

Site Access Route: Mercury Highway north to Rainier Mesa Road. Turn left (northwest) on Rainier Mesa Road and proceed to Pahute Mesa Road. Turn right (north) on Pahute Mesa Road and travel to Dead Horse Flats Road (RSM 19 P73). Turn right (north) on Dead Horse Flats Road and continue 2.8 miles to a dirt road at RSM 19 C11. Turn left (west) onto the dirt road and proceed 1.0 mile to RSM 19 E4. Take the left fork and continue 0.4 mile to the U-19e Cellar.

Waste Item(s) Originally at Site	Apparent Waste Type*
Ordinary	Ordinary

* Ordinary, Scrap Metal, Asbestos, PCB, Salvageable, Hazardous, Radioactive, Mixed, Unknown, Other

Preliminary Assessment Photograph
(taken 04/08/2002)

Current Site Condition
(taken 07/10/2003)

Current Site Description/Observations: Due to the remote location of the material no action was taken per an agreement between the U. S. Department of Energy, National Nuclear Security Administration and the Nevada Division of Environmental Protection.

_X_ No Further Action Required at Housekeeping Site

Reed J. Poderis, CEM Reed J. Poderis 10/19/05
Corrective Action Coordinator/Designee **Signature** **Date**

Sectored Housekeeping Site Closure Verification Form

Closure Verification Date: 07/10/2003
CAU Number: 395
CAS Number: 19-99-07
CAS Description: Cement Spill
Sector Designation: NTS Sector G
Housekeeping Site General Location: U-19am Trailer Park
Elevation: 2,042 meters
Northing: 4,128,885 m (UTM Zone 11) **Easting:** 556,057 m (UTM Zone 11)
Latitude: 37.30491 **Longitude:** - 116.36745
Coordinate/Elevation Data Obtained from: North American Datum, 1983.

Site Access Route: Mercury Highway north to Tippipah Highway. Turn left (west) on Tippipah Highway and proceed to Pahute Mesa Road. Turn left (west) on Pahute Mesa Road and proceed to 19-03 Road. Turn right (north) on the dirt road just past the first fork in the road. Proceed past RSM R 4 to another fork in the road. Turn right (northeast) at the fork and proceed 1.5 miles to the site.

Waste Item(s) Originally at Site	Apparent Waste Type*
Ordinary	Ordinary

* Ordinary, Scrap Metal, Asbestos, PCB, Salvageable, Hazardous, Radioactive, Mixed, Unknown, Other

Preliminary Assessment Photograph
(taken 04/08/2002)

Current Site Condition
(taken 07/10/2003)

Current Site Description/Observations: Due to the remote location of the material no action was taken per an agreement between the U. S. Department of Energy, National Nuclear Security Administration and the Nevada Division of Environmental Protection.

_X_ No Further Action Required at Housekeeping Site

Reed J. Poderis, CEM	Reed J. Poderis	10/19/05
Corrective Action Coordinator/Designee	**Signature**	**Date**

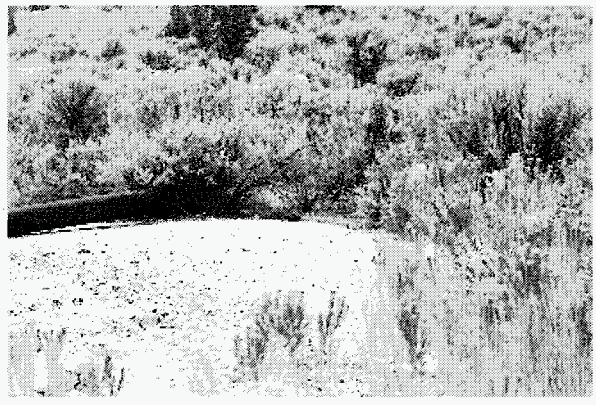
Sectored Housekeeping Site Closure Verification Form

Closure Verification Date: 07/10/2003
CAU Number: 395
CAS Number: 19-99-08
CAS Description: Cement Spill
Sector Designation: NTS Sector G
Housekeeping Site General Location: U-19at
Elevation: 2,063 meters
Northing: 4,122,132 m (UTM Zone 11) **Easting:** 556,313 m (UTM Zone 11)
Latitude: 37.24402 **Longitude:** - 116.36507
Coordinate/Elevation Data Obtained from: North American Datum, 1983.

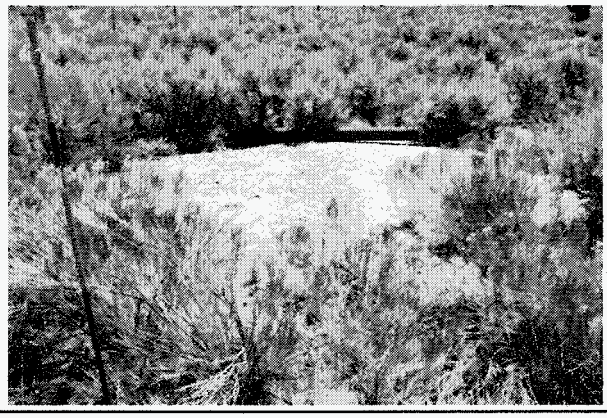
Site Access Route: Mercury Highway north to Pahute Mesa Road. Turn left (west) on Pahute Mesa Road and continue 0.4 mile past RSM P42 to 19-02 Road. Turn left (south) on 19-02 Road and proceed 1.7 miles to a dirt road on the right (west). Turn right on the dirt road and continue 100 feet to the cement spill on the left (south).

Waste Item(s) Originally at Site	Apparent Waste Type*
Ordinary	Ordinary

* Ordinary, Scrap Metal, Asbestos, PCB, Salvageable, Hazardous, Radioactive, Mixed, Unknown, Other



Preliminary Assessment Photograph
(taken 04/09/2002)



Current Site Condition
(taken 07/10/2003)

Current Site Description/Observations: Due to the remote location of the material no action was taken per an agreement between the U. S. Department of Energy, National Nuclear Security Administration and the Nevada Division of Environmental Protection.

X No Further Action Required at Housekeeping Site

Reed J. Poderis, CEM	Reed J. Poderis	10/19/05
Corrective Action Coordinator/Designee	**Signature**	**Date**

Sectored Housekeeping Site Closure Verification Form

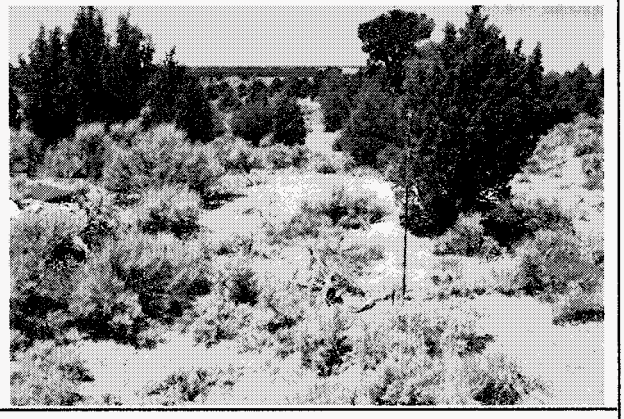
Closure Verification Date: 07/10/2003
CAU Number: 395
CAS Number: 19-99-10
CAS Description: Cement Spill
Sector Designation: NTS Sector G
Housekeeping Site General Location: U-19f Trailer Park
Elevation: 2,052 meters
Northing: 4,119,770 m (UTM Zone 11) **Easting:** 556,523 m (UTM Zone 11)
Latitude: 37.22272 **Longitude:** - 116.36288
Coordinate/Elevation Data Obtained from: North American Datum, 1983.

Site Access Route: Mercury Highway north to Pahute Mesa Road. Turn left (west) on Pahute Mesa Road and proceed to 19-02 Road. Turn left on 19-02 Road and continue 3.3 miles, staying right at the first fork (0.3 mile), and left at the next three forks (2.2 miles, 2.9 miles, and 3.1 miles). The site is 15 feet west of the road.

Waste Item(s) Originally at Site	Apparent Waste Type*
Ordinary	Ordinary

* Ordinary, Scrap Metal, Asbestos, PCB, Salvageable, Hazardous, Radioactive, Mixed, Unknown, Other

Preliminary Assessment Photograph
(taken 04/09/2002)



Current Site Condition
(taken 07/10/2003)

Current Site Description/Observations: Due to the remote location of the material no action was taken per an agreement between the U. S. Department of Energy, National Nuclear Security Administration and the Nevada Division of Environmental Protection.

_X_ No Further Action Required at Housekeeping Site

Reed J. Poderis, CEM		10/19/05
Corrective Action Coordinator/Designee	**Signature**	**Date**

APPENDIX C:

NATIONAL ENVIRONMENTAL POLICY ACT EVALUATION CHECKLIST

THIS PAGE INTENTIONALLY LEFT BLANK

NV-2005-065

NV-16
(Rev. 11/2003)

Other Editions Obsolete

U.S. DEPARTMENT OF ENERGY
NATIONAL NUCLEAR SECURITY ADMINISTRATION NEVADA SITE OFFICE
NEPA ENVIRONMENTAL EVALUATION CHECKLIST

FOLLOW ATTACHED PROCEDURES FOR COMPLETING CHECKLIST	Date
A. Project/Activity Title (Attach a brief description of proposed project) **Housekeeping Sites Closure/Cleanup Activities (CAUs 286, 390, & 395)**	**04/26/2005** Anticipated Start Date
Project Location **NTS, Various Areas**	Proposed By (if other than NNSA/NSO)
NNSA/NSO Line Management Organization **Environmental Restoration**	NNSA/NSO Project/Program Manager **Sabine Curtis**

ENVIRONMENTAL CONSIDERATIONS: If any phase of the project/activity involves any of the following considerations, check yes and explain in project description. See NV-16A for consideration guidelines and examples.

CONSIDERATION	YES	NO	UNK	CONSIDERATION	YES	NO	UNK
WASTE				**AIR EMISSIONS**			
1 Non-Rad Solid Waste	X			1 Biological Material/Chemical Release		X	
2 Hazardous Waste	X			2 Dust/Particulate Matter	X		
3 Low-level Rad Waste	X			3 Explosives		X	
4 Mixed Waste	X			4 Diesel Generators		X	
5 TRU/Mixed TRU Waste		X		5 Open Burning		X	
6 Wastewater (domestic/industrial)		X					
				SITE LOCATION/OTHER			
HAZARDOUS MATERIALS				1 Environmental Restoration Site (CAU)	X		
1 Petroleum/Fuel (storage/use)	X			2 Excavation/Land Surface Disturbance	X		
2 Underground Storage Tanks		X		3 Off road travel		X	
3 Aboveground Storage Tanks		X		4 Biological/Tortoise Resource Area		X	
4 PCB's/Asbestos		X		5 Cultural/Historic Resource Area		X	
5 Pesticides/Herbicides		X		6 Change in Existing Drainage Pattern		X	
6 Radioactive Materials		X		7 Impact to Environmental Monitoring System		X	
7 Biological Materials/Simulants		X		8 Unexploded Ordnance Area		X	
8 Beryllium			X	9 Noise	X		
9 Chemical storage/use		X		10 Radiation controlled area	X		
10 Use of explosives/firearms		X		11 Drinking water system involvement		X	

DO NOT TYPE OR WRITE BELOW THIS LINE. FOR ESHD USE ONLY.

B. Is the project/activity included in the final NTS EIS and the ROD or other NEPA document?
Yes X (complete Sections C, D, and E) No ____ (complete Sections D, E, and F)

C. This project/activity is included in the NTS EIS/ROD (or other NEPA document) under the following section and page no.:
NTS EIS Volume 1, Appendix A, A.3.1.3 - *Environmental Restoration Program; Industrial Sites Project*

D. Does the proposed project/activity require any local, state, or federal permits or notifications? Yes X No ____

E. If, based on the project description and the preliminary environmental considerations noted above, the proposed action fits within a class of action listed in Subpart D of 10 CFR 1021, write in the space below, the paragraph number and short title from the appropriate table of contents of Subpart D, Appendix B, C, or D, for a CX, EA, or EIS. If the proposed action does not fit within any class of action, write "Not Listed" below.

F. **NEPA COMPLIANCE OFFICER DETERMINATION OR RECOMMENDATION:**
I have determined that the proposed activity as described in item A above, has been adequately addressed in the document cited in item C for the purpose of NEPA. No further analysis or documentation is required pursuant to NEPA.

Linda M. Cohn — NNSA/NSO NEPA Compliance Officer

5/19/05 — Date

CAUs 286, 390, & 395 Housekeeping Sites Closure/Cleanup Activities

Project Description

The purpose of this project is to remove various debris located at several Corrective Action Units (CAUs). The CAUs are housekeeping sites, located at the Nevada Test Site (NTS). CAU 286 is located in Areas 1, 2, 3, 4, 6, 10, and 18 and consists of twelve CASs. CAU 390 is located in Areas 9, 10, and 12 and consists of six CASs. CAU 395 is located in Area 19 and consists of ten CASs. A detailed list of the CASs and description of the CASs and descriptions is provided in the Federal Facility Agreement and Consent Order (FFACO) of 1996. Each CAU is listed below, with a brief description of the types of debris present in the CASs.

CAU 286 includes pieces of lead shielding in various locations. A pile of concrete is also included. Some of the waste may be radioactive. The lead material is hazardous. However, the majority of the lead material is salvageable for recycling.

CAU 390 includes asphalt, paraffin wax, and tar spills. One drum with several gallons of unknown liquid is also included. Some of the waste may be radioactive and/or hazardous/toxic.

CAU 395 includes concrete, oil, and asphalt spills. Several spills of unidentified materials are also included. Some of the waste may be radioactive and/or hazardous/toxic.

Environmental Considerations

W-1, Non-Rad Solid Waste: Any solid waste that may be generated from project activities will be disposed of at the NTS in a designated landfill.

W-2, Hazardous Waste: Several sites contain lead, PCB, or TPH-impacted and/or sanitary waste and soil. No other chemical hazards are known to exist. Personnel will be required to follow the safety procedures outlined in the Site Specific Health and Safety Plan and Job Hazard Analysis. Wastes will be disposed either on the NTS or offsite, depending on analysis results.

W-3, Low-level Rad Waste: Several sites are in a URMA, CA, or RMA. Radiologically impacted soil and debris in these areas may require disposal either at the Area 3 or Area 5 Radioactive Waste Management Sites.

W-4, Mixed Waste: Any waste which is classified as mixed waste will be disposed at the NTS in an approved mixed waste facility.

HM-1, Petroleum/Fuel (storage/use): Heavy equipment onsite will use petroleum fuel. No fuel will be stored onsite outside of the equipment. Absorbent pads will be used if equipment appears to be leaking petroleum.

HM-8, Beryllium: If any housekeeping site is determined to be in a legacy beryllium area, Industrial Hygiene will be contacted to provide guidance on how to minimize potential exposure

to beryllium. This is in accordance with company procedure CM-0444.001-079, "Chronic Beryllium Disease Prevention".

A-2, Dust/ Particulate Matter: Some dust may be generated by excavation activities, but will be controlled as necessary by water spraying.

S-1, Environmental Restoration Site (CAU): These sites are included in the FFACO as CAU 286, 390, and 395 (See Project Description).

S-2, Excavation/Land Surface Disturbance: Equipment will travel off-road on previously disturbed areas. Equipment will also be used to help remove surface debris. Minor excavations may be required to remove stained soil at spill locations. All excavations will be performed under the appropriate permit.

S-9, Noise: Elevated noise levels may result from the operation of a backhoe and/or loader equipment. Personnel not directly involved with operation of this equipment will be kept back at least 15 feet while equipment is in use. The equipment operator will follow the instructions as directed in the Site Specific Health and Safety Plan.

S-10, Radiation Controlled Area: All CASs are in radiation controlled areas. All personnel onsite will have General Employee Radiological Training, at a minimum. Radiological Control Technicians will be onsite as required by Radcon.

LIBRARY DISTRIBUTION LIST

THIS PAGE INTENTIONALLY LEFT BLANK

LIBRARY DISTRIBUTION LIST

U.S. Department of Energy National Nuclear Security Administration Nevada Site Office Technical Library P.O. Box 98518, M/S 505 Las Vegas, NV 89193-8518	1 (Uncontrolled)
U.S. Department of Energy Office of Scientific and Technical Information P.O. Box 62 Oak Ridge, TN 37831-0062	1 (Uncontrolled, electronic copy)
Southern Nevada Public Reading Facility c/o Nuclear Testing Archive P.O. Box 98521, M/S 400 Las Vegas, NV 89193-8521	2 (Uncontrolled, electronic copies)
Manager, Northern Nevada FFACO Public Reading Facility c/o Nevada State Library & Archives Carson City, NV 89701-4285	1 (Uncontrolled, electronic copy)

THIS PAGE INTENTIONALLY LEFT BLANK